

Appl. No.: 09/924,348
TC/A.U.: 1732 Docket No.: B01-27
Reply to Office Action of October 7, 2003

REMARKS

In the Office Action, the Examiner stated that the application claimed three separate and patentably distinct species: a) using a medium of particles; b) using a fluid medium; and c) using a convection oven. The applicant hereby confirms the election of species a) using a medium of particles, claims 9-11, that was made on September 25, 2003.

In the specification, the Abstract has been amended to conform with MPEP § 608.01(b).

Claims 1-11 and new claims 16-17 appear in this application for the Examiner's review and consideration.

Claims 12-15 have been withdrawn from consideration pending the patentability of the generic claims from which they depend. Applicant reserves the right to file one or more divisional applications directed to any subject matter not presently claimed.

New claims 16-17 have been added. No new matter has been added by these additions. Support can be found in the original claims and throughout the specification. More particularly, support for new elements can be found at least on pages 5-7 of the specification.

Rejection Over U.S. Patent No. 6,093,357 In View of U.S. Patent No. 3,965,055

Claims 1-8 were rejected under 35 U.S.C. § 103(a) as being obvious over the '357 patent in view of the '055 patent. The Examiner indicated that the '357 patent teaches providing a core material compression molding the core material in a mold cavity such that the core material becomes partially cured and then forming a substantially cured core. The Examiner admitted that the '357 patent does not teach placing a partially cured core into a medium to complete the curing process.

The claims are directed to compression molding the core material in a mold cavity to form a partially-cured core. The Examiner's reliance on the '357 patent is not complete because the '357 patent teaches the formation of ellipsoidal half-shells and then compression molding the half-shells around a center to form a multi-layer core. The patent states that the "ellipsoidal half-shells are preferably injection molded from the mixture based on cost and speed considerations, although compression molding is also suitable." Col. 10, lines 50-52. "The assembly of the core, i.e., typically two half-shells and a center, may be compression molded." Col. 11, lines 3-5. Thus, the '357 patent does not teach forming a partially-cured core at all.

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The '055 patent does not fix the deficiencies of the '357 patent. The Examiner stated that the '055 patent teaches curing a rubber product by partially curing the product in a mold and then curing the partially cured product in an air oven or microwave. Specifically, the '055 patent teaches forming a golf ball by mixing polypropylene to polybutadiene and injecting the material into a dimpled mold. Then the balls were cured in a hot air oven. As set forth in more detail in Column 2, lines 10-66, the method employed uses a thermoplastic resin added to the rubber. The thermoplastic/rubber is mixed and formed into shape. Then the material can be "free cured".

Another key point is that the application, in claim 5, specifically claims curing the cores in a medium at a temperature greater than the compression mold temperature. The '055 patent specifically calls for the "free cure" at a temperature below the melting point of the thermoplastic resin component. As shown in Figure 1, the melting point for polypropylene is less than 340°F. Thus, the '055 patent does not teach or suggest that cores can be cured in a medium at a second predetermined temperature that is greater than a first predetermined temperature of the compression mold.

Additionally, neither reference, alone or in combination, discloses the element of partially curing a core in a compression mold and then substantially curing the core in a medium. At best, the '357 patent when combined with the '055 patent suggest that semi-ellipsoidal half-shells formed of a thermoplastic/rubber blend can be injected over a center to form a core and then the core can be free cured in a hot oven. That is not what is claimed. Moreover, neither of the references discloses or suggests the improved efficiency and significantly more consistent product that can be obtained from the process claimed. Regarding the specifically claimed temperatures, it is noted that the Examiner states that these are well-known and important. However, the '055 patent teaches curing in hot air at 310°F (Col. 25, line 16) and claim 7 specifically claims between 350 °F and 500 °F, which is above the melting point of the polypropylene suggested in the '055 patent. Thus, the '055 patent teaches away from the Examiner's conclusion.

Thus, the rejection under 35 U.S.C. § 103(a) is believed to have been overcome for at least the above reasons. Applicant(s) respectfully request reconsideration and withdrawal thereof.

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**Rejection Over U.S. Patent No. 6,093,357 In View of U.S. Patent No. 3,965,055 In
Further View of U.S. Patent No. 3,072,968**


Claims 9-11 were rejected under 35 U.S.C. § 103(a) as being obvious over the '357 patent in view of the '055 patent as applied to claim 1 and in further view of the '968 patent. For the reasons set forth above, these claims are believed to be patentable over the '357 patent and '055 patent. Moreover though, the '968 patent should not be combined with the '357 reference. Specifically, the '968 patent teaches an improved method of vulcanizing rubber products of such a design that vulcanization in a mould is undesirable. Col. 1, lines 27-46. More particularly, the patent teaches that "continuous vulcanisation of extrusions may be carried out according to the invention in a horizontal trough containing a heated fluidized bed." Col. 3, lines 19-21. Thus, one of ordinary skill in the art would not read the '968 patent as suggesting that golf ball cores could be partially cured in a compression mold and then substantially cured in a medium comprised of a plurality of solid particles.

Conclusion

Based on the remarks set forth above, Applicant believes that all of the rejections have been overcome and the claims of the subject application are in condition for allowance. Should the Examiner have any further concerns or believe that a discussion with the Applicant's agent would further the prosecution of this application, the Examiner is encouraged to call the agent at the number below.

As amended, the application contains 17 claims in total and 2 independent claims. As such, no fee is believed to be due for this submission. However, should a fee or any other required fees be due, please charge them to the Acushnet Company Deposit Account No. 502309.

Respectfully submitted,



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